

REMARKS

This paper responds to the Office Action dated March 21, 2008. Claims 1-37 and 41-43 are canceled and claims 44-86 are added; as a result, claims 38-40 and 44-86 are now pending in this application.

Allowable Subject Matter

Claims 38-40 were allowed.

Double Patenting Rejection

Claims 1-37 were provisionally rejected under a non-statutory obviousness-type double patenting rejection, specifically over claims 1-73 of U.S. Application Patent No. 10/516,579. Applicant has canceled claims 1-37 such that the rejection is moot.

§102 / §103 Rejection of the Claims

Claims 1-19 and 22-29 were rejected under 35 U.S.C. § 102(b) for anticipation by, or in the alternative, under 35 U.S.C. § 103(a) as being obvious over Robbins (U.S. Patent No. 6,190,558). Applicant has canceled claims 1-19 and 22-29 such that the rejection is moot.

§103 Rejection of the Claims

Claims 20 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Robbins (U.S. Patent No. 6,190,558).

Claims 31, 33, 34 and 35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Robbins (U.S. Patent No. 6,190,558) in view of Ferguson (U.S. Patent No. 5,891,333).

Claims 41-43 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Robbins (U.S. Patent No. 6,190,558) in view of Ferguson (U.S. Patent No. 5,891,333) and Bartsch et al (U.S. Patent Application Publication No. 2002/0046969 A1).

Claims 30, 32, 36 and 37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Robbins (U.S. Patent No. 6,190,558) in view of Gundrum et al. (U.S. Patent No. 5,891,334) and Ferguson (U.S. Patent No. 5,891,333).

Applicant has canceled claims 20-21, 30-37 and 41-43 such that these rejections are moot.

New Claims 44-56

Applicants note that none of the cited references includes any objective evidence as to a reverse osmosis system which includes a membrane element that "is capable of producing a permeate flow rate of at least 500 GPD under home reverse osmosis conditions, wherein home reverse osmosis conditions includes supplying the feed water at 65psi average water pressure at a surface of the membrane element with the feed water being at 77 degrees Fahrenheit and consisting of 500 ppm NaCl in water having a PH in the range of 7-8 such that the system operates at 25% recovery, wherein the system occupies a volume that is less than 15,000 cubic inches" as recited in new claim 44.

Applicants respectfully notes that the device described in Robbins provides no objective evidence that the disclosed system could produce a 750 GPD permeate flow rate while occupying "a volume that is less than 15,000 cubic inches" as recited in new claim 44. Applicants notes that the extensive description in Robbins as to the use of a pump provides dispositive evidence that the disclosed system could not produce a 750 GPD permeate flow rate under the conditions that are recited in claim 44.

Robbins at column 4, lines 29-33 discloses a "pump 13" that is "designed and sized so as to supply an aqueous stream to the purification unit 11 ..." (see also FIG. 1 of Robbins). Applicant notes that this is the feed flow to the membrane element 11 from which comes the permeate 19 and the brine concentrate 21.

Applicant respectfully directs the Examiner's attention to column 5, lines 50-54 of Robbins which specifically states that "the pressure reducer in combination with the pump should preferably maintain a feed side pressure of at least about 100 psig, and up to about 400 psig on the feed side of the membrane unit, and preferably at least about 75% of the feed flow to the unit 11 exits via the brine line 21." Since membrane element 11 has only two exits, 21 and 19, and the brine line 21 consumes at least about 75% of the feed flow, then the flow from permeate line 19 is less than about 25% of the feed flow 11.

Robbins establishes in established in column 4, lines 30-33 that the upper end of the flow for membrane unit 11 is 2 gpm. Therefore, the maximum flow in the permeate line would be 25% of this at maximum. Applicant notes that this maximum flow rates corresponds about 0.5 gpm (or about 720 gpd).

Robbins further establishes in column 5, lines 50-54 that the specified minimum pressure which feeds the membrane element 11 is 100 psig. Applicants note that this pressure is about 54% higher than the 65 psig pressure which is recited in claim 44. Applicants further note that accounting for this pressure difference means that at the claimed conditions, the membrane element that is disclosed in Robbins provides about 0.325 gpm or about 468 gpd which is significantly less than the 750 gpd which is recited in claim 44.

Applicants further respectfully note that there is no description in Robbins that the disclosed reverse osmosis system utilizes a membrane element that "has an average A value that is greater than 25" as recited in claim 51. In addition, Applicants submit that the disclosed reverse osmosis system is incapable of producing the recited 750 gpd flow rate (much less the 1000 gpd recited in claim 55) using a membrane element has an active membrane area that "has less than 50 square feet of active membrane area" as recited in claim 54.

Applicants note that some of the support for new claims 44-56 is found in Applicants' specification at pages 3-4.

Reservation of Rights

In the interest of clarity and brevity, Applicant may not have equally addressed every assertion made in the Office Action, however, this does not constitute any admission or acquiescence. Applicant reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicant does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicant timely objects to such reliance on Official Notice, and reserves all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicant reserves all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (262) 646-7009 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date May 30, 2008

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 30 day of May 2008.

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